IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Group Art Unit: 2454
Larry White et al.	Examiner: Park, Jeong S.
Application No.: 10/658,439	
Filed: September 8, 2003	**REPLY BRIEF IN RESPONSE TO EXAMINER'S ANSWER**
For: **CONTENT DIRECTORY AND SYNCHRONIZATION BRIDGE**	162 N. Wolfe Rd. Sunnyvale, CA 94086 (408) 530-9700
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Mail Stop Appeal Brief - Patents
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Sir:

In reply to the Examiner's Answer mailed on July 7, 2010, this Reply Brief is hereby submitted. Claims 1-42 have been rejected. The Appellant submits this brief to the Board of Patent Appeals and Interferences in compliance with the requirements of 37 C.F.R. § 41.41, as stated in *Rules of Practice Before the Board of Patent Appeals and Interferences (Final Rule)*, 69 Fed. Reg. 49959 (August 12, 2004).

The Appellant contends that the rejection of Claims 1-42 in this pending application is in error and should be overcome by this appeal. The appellant further contends that the Carter, Hays and Gu references do not support the rejection of Claims 1-42.

I. SUMMARY OF THE CLAIMED INVENTION

The invention disclosed in the present application number 10/658,439 is directed to an interface layer, also referred to as a synchronization-CDS bridge, that automatically provides a first set of update information to a Content Directory Service (CDS) regarding any content received by a first media server during a data synchronization process. The interface layer also provides a second set of update information to a synchronization application regarding any content newly added to the first media server subsequent to a last data synchronization. The interface layer discovers the second set of update information provided to the synchronization application from the CDS. The second set of update information is used by the synchronization application to select the newly added content during a next data synchronization.

II. ARGUMENTS RELATED TO REJECTION OF CLAIMS 1-4, 6-11, 13-17, 19-23, 25-27, 29-34 and 36-40

A. Teachings of Carter and Hays.

Carter

Carter teaches a system and method for synchronizing a multiplicity of devices in a multimedia environment which includes a multimedia device, a multimedia database, a portable multimedia player, a personal computer and a master digital multimedia device. [Carter, Figure 1] As is recognized within the Office Action of November 27, 2009, Carter does not teach 1) a content directory service to maintain *directory information related* to new content received. [Office Action, page 3 (emphasis added)] Also as recognized within the Office Action of November 27, 2009, Carter does not teach 2) an *interface layer* coupled to communicate with the synchronization application and the content directory service to provide update information to the content directory service regarding new content data received by the database from the external device during the content data synchronization. [Office action, page 3, (emphasis added)] Indeed, because Carter does not teach an interface layer, Carter inherently cannot teach 3) an interface layer that is *a part of the media server*. Furthermore, Carter does not teach 4) a *content directory service* to browse the content data stored in the database and to provide information regarding the content data stored in the database. Finally, Carter does not teach 5) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention. Accordingly, Carter does not teach the presently claimed invention.

Within the Examiner's Answer, it is asserted that "automatically providing update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention" is taught in Carter by ¶ 31, which states

> digital multimedia device 104 allows the user, via the control unit 314 means, to request and download entirely new recorded data into the digital multimedia device 104 or program the digital multimedia device 104 to synchronize and update the user's audio/video files automatically from a multimedia database. [Examiner's Answer, page 4 (emphasis added)]

However, the claimed limitations are not directed to the synchronization process itself, they are directed to an automatic transfer of update information that *regards* a sync process. In other words, the claimed limitation describes a process separate from the synchronization process that merely involves automatic transfer of information related to the prior synchronization. As a result, although the above cited portion of Carter does describe a sync process, it is clear that it in no way describes a data transfer related to but separate from the synchronization process as defined within the claims. Indeed, this distinction is made further apparent below where it is illustrated that the only data taught by Carter is the content itself, not update information regarding said content. Accordingly, even assuming Carter teaches automatic synchronization, it does not teach the automatic transfer of update information regarding said synchronization.

Furthermore, even assuming Carter related to the transfer of update info and not just the synchronization itself, Carter would still fail because the claims also include the phrase "without user intervention." As cited above, Carter clearly teaches that "the user" requests and downloads or programs the digital multimedia device, and thus Carter requires user intervention. In response, within the Office Action of November 27, 2009, it is asserted that "Carter teaches automatic synchronization without user intervention **during the synchronization period**" and "[thus] the program inherently does not require user intervention." [Office Action, page 13 (emphasis added)] However, the claimed limitation does not recite "without user intervention *during the synchronization period*," it just recites "without user intervention." The addition of "during the synchronization period" is not recited in the claims and thus cannot be used to allow the prior art to teach the claimed limitations. Instead, the prior art must teach that the automatic update occurs wholly without user intervention, without any limitations placed on when the user interference occurs. Note again, that even to get to this point it must be assumed that the sync

process of Carter is equivalent to an update info transfer process *regarding* a prior sync, which it does not.

Within the Examiner's Answer, the assertion found within the above Office Action is slightly altered in that it is now stated that "[s]uch [a] program inherently does not require user intervention *while running the program*." [Examiner's Answer, page 13 (emphasis added)] In other words, the argument described above is only changed in that the phrase "**during the synchronization period**" is substituted with the phrase "**while running the program**." However, such a change in phraseology does not change the fact that Carter still requires user intervention. Again, the claimed limitation does not recite "without user intervention while running the program," it recites "without user intervention" period. It is understood that there are some parts of a synchronization process (and update info transfer process) that will not require user intervention (e.g. while the synchronization program is running). However, it is equally understood that this lack of intervention in some parts does not equate to a lack of user intervention in the whole. Carter clearly teaches that a user is required to effectuate a synchronization process even if the user is not required perform the actual scripts that are performed while the program is running. Thus, even assuming the sync process equated to the update info transfer process, Carter still does not teach to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention.

Moreover, even assuming the sync process of Carter equated to the update info transfer process and assuming the process was done without user intervention, that is not the same as automatically providing update information *regarding* new content data to a Content Directory Service (CDS). Specifically, there is a difference between "new content" and "information regarding new content." Within the Reply Brief, all the citations of Carter regarding the above limitation relate to the downloading of the content itself, not to information *regarding* the new content. In particular, Carter merely teaches that the "digital multimedia device 104 allows the user, via the control unit 314 means, to request and download entirely new *recorded data*," not information *regarding* the new recorded data. [Carter, ¶ 31 (emphasis added)] New content cannot be "regarding" itself in the same way that a person cannot be a relative of themselves. Indeed, this difference is a result of Carter describing a sync process instead of an automatic update info transfer process as claimed. Accordingly, even assuming no user intervention, Carter still does not teach to automatically provide update information to the content directory service

regarding the new content data received by the database from the external device during the content data synchronization.

Essentially, it seems to be misunderstood that the automatic transfer of data described in the claimed limitations is the reporting of information to the CDS *regarding* new content downloaded/synched to the database, not the downloading/synching of the content itself to the CDS. Carter is describing a downloading/synchronizing process whereas the claimed limitation is describing the automatic transfer of information regarding a synchronization process, not the process itself. Indeed, again, this difference is illustrated in that because the claimed updating is about update info *regarding* the new content downloaded (not the new content itself), it cannot occur during or before the actual downloading/synchronizing. Thus, the claimed limitation is not describing the synchronization of the data itself with the media server, but instead the transfer of update info to the CDS, wherein the update info regards a prior sync process.

Finally, even for the purpose of combination with other references, Carter does not even teach the concept of automatically providing update information regarding new content to a CDS. All that Carter teaches or suggests is the downloading of content from a database to a media device, and such a suggestion is lacking in that it 1) is a sync process not an automatic update regarding a sync process, 2) involves user intervention, 3) relates to the content and not information regarding the content, and 4) does not involve a CDS of any kind. As a result, even if another reference taught a CDS, Carter could not be relied upon even for teaching a generalized concept of updating a CDS with update info regarding a synchronization. Accordingly, for at least these reasons, Carter does not teach to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention.

Hays

Hays teaches a distribution system including a server and collection kiosks for distributing content for a medical information collection system. Hays also teaches:

> The kiosk clients, which are implemented at the collection kiosks, include a web browser (not shown), web pages 811, a server interface 812, and a client database 813. The web pages define the user interface for the collection kiosks. The description of these web pages (e.g., HTML documents) along with additional content (e.g., .gif files) may be stored in a certain directory of the file system. A user of the collection kiosk uses the browser to browse the various web pages. The server interface is responsible for accessing the central medical information system to retrieve updated content and registered user updates. In one

> embodiment, the server interface acts as an FTP client to retrieve updated content and user updates from the central medical information system. The server interface may periodically (e.g., daily) established an FTP connection to retrieve the updated content and user information. The server interface stores the updated content in the web page directory to overwrite or augment existing web page content or updates a registered user table to reflect the updated user information. The client database thus contains the identification of each of the users of the central medical information system along with the medical information collected at that collection kiosk. [Hays, ¶ 26]

In other words, Hays teaches a web page directory, the "CDS", wherein user information from a central medical information system is sent to the web page directories so they reflect the info in the central system. However, this information sent to the web page directories is not *regarding* a sync operation. Instead, it is merely regarding new information acquired by the central system from users of the system, which is not a synchronization. Indeed, Hays is only cited for the purpose of teaching "a content directory service to maintain directory information related to new content received and to browse the content data stored in the database" and "a server interface." Accordingly, Hays does not teach to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention.

Further, within the Examiner's Answer, Hays paragraph 26 is cited as teaching "a server interface for accessing the central medical information system to retrieve updated content and storing the updated content in the web page directory." [Examiner's Answer, page 5] However, Hays does not teach an interface layer coupled to communicate with the *synchronization application* and the content directory service. Indeed, as described above, Hays does not teach synchronization at all, much less communication by an interface layer with a synchronization application. Instead, the server interface 812 of Hays merely communicates between the asserted CDS (i.e. web page directory) and a central medical system, not a synchronization application. [Hays, ¶ 26] In other words, because the central system does not engage in a synching process (it receives info from users directly, not from synching with other central servers), it does not have a synchronization application to communicate with the server interface 812. Indeed, the only process similar to a synchronization process occurs between the web page directory itself and the central system when the system updates the web page directory. However, even if this process is considered to be the synchronization, in such a case the server interface 812 would have to be considered the synchronization application because it is the component that causes the synchronization. As a result, it would becomes impossible for the server interface to communicate between the CDS and the sync application because it would be the sync application

itself. Essentially, the presently claimed invention requires an interface layer that communicates between a CDS and synchronization application that causes two devices other than the CDS to synchronize. In Hays, the only possible synchronization involves the CDS itself, and thus Hays cannot teach an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and *provide update information* to the content directory service *regarding* the new content data received by the database from the external device during the content data synchronization.

Moreover, Hays does not teach an interface layer that is *a part of the media server.* Within the Examiner's Answer, it is asserted that because the server interface 812 of Hays 1) retrieves updated content from the central medical system and 2) overwrites or augments the web page content with the updated content, the server interface 812 "teaches all functionalities of the interface layer [such that] it would have been obvious ... to modify Carter in view of Hays to include the interface layer in the media server." [Examiner's Answer, page 15] However, as described above, the server interface 812 does not have all the functionalities of the interface layer. Indeed, the server interface 812 plainly does not "*provide update information* to the content directory service *regarding* the new content data received by the database from the external device during the content data synchronization." Instead, as described above, the update info of Hays is not regarding a synchronization, rather it is merely information provided to the central medical information system directly by the users. Thus, the server interface 812 does not share all functionalities with the interface layer. However, even if the functionalities were shared, that still does not make it obvious to include the interface layer as a part of the media server. Only first looking at the presently claimed invention and using hindsight bias would one be able to compare functionality with the presently claimed invention and then infer where to place the element. No such placement or motivation for said placement of the interface layer is found anywhere in Carter or Hays, nor is it cited within the Examiner's Answer. As a result, the mere conclusion that an interface layer being on the media server is obvious due to common functionality is insufficient. Accordingly, Hays does not teach an interface layer that is *a part of the media server.*

In sum, neither Carter nor Hays teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during

the content data synchronization or 3) an interface layer that is *a part of the media server*. As a result, neither Carter, Hays nor their combination teaches the presently claimed invention.

B. <u>There is No Teaching, Suggestion or Motivation to Combine Carter and Hayes.</u>

There is no motivation to combine Carter with Hays to teach "to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention." Within the Examiner's Answer, it is generally asserted that Hays teaches the CDS element and Carter teaches the remainder. However, even assuming said teachings to be true, the Examiner's Answer does not provide any specific motivation to include Hays' "CDS" with the synchronizing process of Carter. Firstly, Carter only teaches a standard sync process without any concept or suggestion of the benefits of an inclusion of a CDS. No portion of Carter suggests that sending information regarding the sync process to a CDS would be beneficial. Thus, it is clear that Carter provides no specific motivation for incorporating the CDS of Hays. Secondly, Hays teaches an asserted CDS in the form of a webpage directory, but teaches nothing of any benefits of updating the directory with info from a sync process. As a result, even if Carter and Hays were able to teach all the individual elements of the above limitation, there would still be no motivation for the elements combination. Accordingly, there is no motivation to combine Carter with Hays to teach "to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention."

Within the Examiner's Answer on page 16, it is argued that one cannot show nonobviousness by attacking references individually when the rejections are based on combinations of references. However, the Applicants have not attacked the references individually. The Applicants have shown that none of the references individually teach) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. Logically, if none of the references

individually teach this element, then the improper combination of the references cannot teach this element.

Further within the Examiner's Answer, it is asserted that the combination of Carter and Hays is not improper because "Hays teaches of the deficiency of Carter, the interface layer. Therefore, it would have been obvious... to modify Carter with Hays in order to efficiently synchronize multiple devices by using a server interface taught by Hays in the knowledge generally available to one of ordinary skill in the art." [Examiner's Answer, page 16] However, the mere teaching by Hays of an element missing from Carter is not motivation to combine Carter with Hays without impermissibly looking at the presently claimed invention as a template. Specifically, no portion of Carter or Hays is cited as providing any motivation for the combination. Instead, it is merely concluded that the knowledge was generally known in the art without any citation to provide support. Carter teaches the synchronization method between a media device and a database. Hays teaches a global log on system with a kiosk that has a web page directory and receives periodic updates from a cental medical information system. Neither reference teaches a desirability or motivation for combining Carter with a web page director or combining Hays with multimedia device/database synchronization. Accordingly, the combination of Carter and Hays is improper.

In contrast to Carter, Hays and their combination, the presently claimed invention is directed to a content directory and synchronization bridge. A first media server is coupled to one or more devices. The first media server includes a database to store content. The first media server also includes a Content Directory Service (CDS), a synchronization application, and a synchronization-CDS bridge. The synchronization-CDS bridge acts as an interface layer between the synchronization application and the CDS. The synchronization application provides data synchronization communications using one or more conventional synchronization protocols.

As is well known in the art, CDS is a service that is compliant with UPnP architecture. A UPnP network device uses the UPnP CDS to compile detailed information about each content item on the UPnP network device. Each content item that is referenced by the CDS includes various information about the content item including the transfer protocol(s) and file format(s) that the UPnP network device storing the content item can use to transfer the content item to another UPnP network device. [Present Specification, page 4, line 30 through page 5, line 2]

The synchronization application of the claimed invention enables a data synchronization process between the first media server and a web site, a remote media server, a PDA or another device. During the data synchronization process, new content is received from the remote media server by the first media server, and the new content is stored in the database within the first

media server. As the new content is received by the database, the synchronization application keeps a record of the new content received. The synchronization-CDS bridge searches the synchronization application for any newly added content sent to the database. *Information* related to any new content discovered by the synchronization-CDS bridge is *sent* by the synchronization-CDS bridge to the CDS as *update information*. The CDS is updated according to the update information received from the synchronization-CDS bridge, so that the CDS accurately reflects all content in the database, including the newly added content, subsequent to the data synchronization. [Present Specification, page 11, line 6 through page 12, line 4] Once updated, the CDS includes *directory information* related to the *new content* received. [Present Specification, page 14, lines 5-6] Data synchronization between the first media server and the web site, and between the first media server and the PDA or other device is performed in a similar manner as described above. [Present Specification, page 12, lines 5-6] As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server.*

Claims

The independent Claim 1 is directed to a media server. The media server of Claim 1 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data

synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 1 is allowable over the teachings of Carter, Hays and their combination.

Claims 2-4, 6 and 7 are dependent on the independent Claim 1. As discussed above, the independent Claim 1 is allowable over Carter, Hays and their combination. Accordingly, Claims 2-4, 6 and 7 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 8 is directed to a media server. The media server of Claim 8 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to discover the new content added to the database and provide update information to the synchronization application regarding the new content added to the database, wherein the new content data is synchronized with the external device during a next content data synchronization. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 8 is allowable over the teachings of Carter, Hays and their combination.

Claims 9-11, 13 and 14 are dependent on the independent Claim 8. As discussed above, the independent Claim 8 is allowable over Carter, Hays and their combination. Accordingly, Claims 9-11, 13 and 14 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 15 is directed to a media server. The media server of Claim 15 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a content directory service to browse the content data

stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to discover the new content data received by the database and provide first update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization, and to provide second update information to the synchronization application regarding the new content data added to the database, wherein the new content data is synchronized with the external device during a next content data synchronization. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 15 is allowable over the teachings of Carter, Hays and their combination.

Claims 16, 17, 19 and 20 are dependent on the independent Claim 15. As discussed above, the independent Claim 15 is allowable over Carter, Hays and their combination. Accordingly, Claims 16, 17, 19 and 20 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 21 is directed to a network of devices. The network of devices of Claim 21 comprises a network device, a first media server coupled to the network device, the first media server including a database to store content data, a synchronization application to perform content data synchronization with the network device, a content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to discover the new content data received by the database and provide first update information to the content directory service regarding the new content data received by the database from the network device during content data synchronization, and to provide second update information to the synchronization application regarding the new content data added to the database, wherein the new content data is synchronized with the network device

during a next content data synchronization. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 21 is allowable over the teachings of Carter, Hays and their combination.

Claims 22, 23, 25 and 26 are dependent on the independent Claim 21. As discussed above, the independent Claim 21 is allowable over Carter, Hays and their combination. Accordingly, Claims 22, 23, 25 and 26 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 27 is directed to a method of synchronizing data between two network devices. The method of Claim 27 comprises sending first update information to a content directory service from an interface layer regarding a first new content data received by a first media device from a second media device during content data synchronization performed by a synchronization application, thereby maintaining by the content directory service directory information related to the first new content data received, and sending second update information to the synchronization application from the interface layer regarding a second new content added to the first media device, wherein the second new content data is synchronized with the second media device during a next content data synchronization. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 27 is allowable over the teachings of Carter, Hays and their combination.

Claims 29-31 are dependent on the independent Claim 27. As discussed above, the independent Claim 27 is allowable over Carter, Hays and their combination. Accordingly, Claims 29-31 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 32 is directed to a method of synchronizing data between two network devices. The method of Claim 32 comprises performing data synchronization between a first media server and a second media server, receiving content data related to the data synchronization on the first media server, obtaining update information related to the received content data from a synchronization application on the first media server, providing the update information to a content directory service of the first media server and updating the content directory service according to the update information, thereby maintaining by the content directory service directory information related to the received content data. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 32 is allowable over the teachings of Carter, Hays and their combination.

Claims 33, 34, 36 and 37 are dependent on the independent Claim 32. As discussed above, the independent Claim 32 is allowable over Carter, Hays and their combination. Accordingly, Claims 33, 34, 36 and 37 are all also allowable as being dependent upon an allowable base claim.

The independent Claim 38 is directed to an apparatus for synchronizing data between two network devices. The apparatus of Claim 38 comprises means for performing data synchronization between a first media server and a second media server, means for receiving content data related to the data synchronization on the first media server, means for obtaining update information related to the received content data from *a synchronization application on the first media server*, means for providing the update information to a content directory service of the first media server and means for updating the content directory service according to the update information, wherein the content directory service maintains directory information related to the received content data. As described above, the combination of Carter and Hays is

improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 38 is allowable over the teachings of Carter, Hays and their combination.

The independent Claim 39 is directed to a media server. The media server of Claim 39 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 39 is allowable over the teachings of Carter, Hays and their combination.

The independent Claim 40 is directed to a media server. The media server of Claim 40 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to automatically provide first update information to the content directory service

regarding the new content data received by the database from the external device during the content data synchronization without user intervention, and to automatically provide second update information to the synchronization application regarding the new content data added to the database without user intervention, wherein the new content data is synchronized with the external device during a next content data synchronization. As described above, the combination of Carter and Hays is improper. As further described above, neither Carter, Hays nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 40 is allowable over the teachings of Carter, Hays and their combination.

III. ARGUMENTS RELATED TO REJECTION OF CLAIMS 5, 12, 18, 24, 28, 35, 41 and 42

A. The Teachings of Carter, Hayes and Gu Does Not Teach the Claimed Invention

As described above, neither Carter nor Hays teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. As a result, neither Carter, Hays nor their combination teaches the presently claimed invention. As also described above, the combination of Carter and Hays is improper.

Gu teaches a device control model that provides an integrated set of addressing, naming, discovery and description processes that enables automatic, dynamic and ad-hoc self-setup by devices to interoperate with other devices on a network. [Gu, Abstract] Gu is only cited for the purpose of teaching Universal Plug and Play. [Gu, col. 5, lines 20-40] However, Gu does not

teach to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user. Further, Gu does not teach an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization. Moreover, Gu does not teach an interface layer that is *a part of the media server*. Accordingly, Gu does not teach the presently claimed invention.

B. <u>The Combination of Carter, Hayes and Gu Does Not Teach the Claimed Invention</u>

As described above, neither Carter, Hays nor Gu teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. Accordingly, neither Carter, Hays, Gu nor their combination teach the presently claimed invention.

Furthermore, there is no motivation to combine Gu with Carter and Hays. Within the Office Action of November 27, 2009, it is asserted that the motivation is to avoid user installation experience, persistent relationship configurations and software driver download whenever connecting multiple devices. [Office Action, page 11] However, Hays does not experience any of those problems because it only uses standard kiosks designed to connect with the central server over the internet using internet protocol. Further, Carter also lacks those problems as it already has a system in place for connecting multiple media devices. Accordingly, there is no motivation to combine the UPnP of Gu with the systems of Carter and Hays. Further, as described above, Hays is non-analogous art and therefore cannot be properly combined with Gu. Accordingly, the combination of Carter, Hays and Gu is improper.

Claim 5 is dependent on the independent Claim 1. Claim 12 is dependent on the independent Claim 8. Claim 18 is dependent on the independent Claim 15. Claim 24 is dependent on the independent Claim 21. Claim 28 is dependent on the independent Claim 27. Claim 35 is dependent on the independent Claim 32. As discussed above, the independent

Claims 1, 8, 15, 21, 27 and 32 are all allowable over the teachings of Carter, Hays and their combination. Accordingly, Claims 5, 12, 18, 24, 28 and 35 are all also allowable as being dependent on an allowable base claim.

The independent Claim 41 is directed to a Universal Plug and Play enabled media server. The Universal Plug and Play media server of Claim 41 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a Universal Plug and Play content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization, wherein the interface layer provides the update information to the synchronization application regarding the new content data added to the database, the new content data to be synchronized with the external device during a next content data synchronization. As described above, the combination of Carter, Hays and Gu is improper. As further described above, neither Carter, Hays, Gu nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 41 is allowable over the teachings of Carter, Hays, Gu and their combination.

The independent Claim 42 is directed to a Universal Plug and Play enabled media server. The Universal Plug and Play enabled media server of Claim 42 comprises a database to store content data, a synchronization application to perform content data synchronization with an external device, a Universal Plug and Play content directory service to browse the content data stored in the database and to provide information regarding the content data stored in the database and to maintain directory information related to new content received, and an interface layer coupled to communicate with the synchronization application and the content directory service to discover the new content added to the database and provide update information to the synchronization application regarding the new content added to the database, wherein the new

content data is synchronized with the external device during a next content data synchronization, further wherein the interface layer provides the update information to the content directory service regarding the new content data received by the database from the external device during content data synchronization. As described above, the combination of Carter, Hays and Gu is improper. As further described above, neither Carter, Hays, Gu nor their combination teach 1) to automatically provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization without user intervention, 2) an interface layer coupled to communicate with the *synchronization application* and the content directory service to discover the new content data and provide update information to the content directory service regarding the new content data received by the database from the external device during the content data synchronization or 3) an interface layer that is *a part of the media server*. For at least these reasons, the independent Claim 42 is allowable over the teachings of Carter, Hays, Gu and their combination.

IV. CONCLUSION

For the above reasons, it is respectfully submitted that the Claims 1-42 are allowable over the cited prior art references. Therefore, a favorable indication is respectfully requested.

Respectfully submitted,
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